
The diets of healthy, nonindustrialized peoples contain at least four times the minerals and water-soluble vitamins, and ten times the fat-soluble vitamins found in animal fats (vitamin A, vitamin D and Activator X, now thought to be vitamin K2) as the average American diet.
Dr. Price’s key finding was the high levels of vitamins and minerals in traditional diets. Price took samples of traditional foods back to his laboratory in Cleveland, Ohio and analyzed them for vitamin and mineral content. He found very high levels of minerals in traditional diets—calcium, magnesium, phosphorus, potassium, iron and iodine—and equally high levels of water-soluble vitamins—vitamin C and the range of B vitamins. Levels of minerals and water-soluble vitamins were at least four times higher in the diets of non-industrialized people.

Most surprising was his finding of very high levels of fat-soluble vitamins—vitamins A, D and K₂—which occur uniquely in animal fats, organ meats, fatty fish, shellfish and fish liver oils. Butter, cream and egg yolks are delicious sources of these vitamins, especially if the animals are raised outside on pasture. So-called primitive diets contained at least ten times more of these fat-soluble vitamins than the modern American diet—and that was in the 1940s. The discrepancy is certainly larger today with the advent of industrial agriculture and the practice of removing the fat from our meat, poultry and dairy products.

Vitamins A, D and K₂ are sadly lacking in today’s diet of processed foods based on vegetable oils, and yet they are key to virtually every process in the body—from protecting us against infectious disease and cancer, to ensuring good eyesight and hearing. Without these fat-soluble vitamins, we cannot make hormones, including sex hormones, nor feel-good chemicals that ward off depression.

Most importantly, vitamins A, D and K₂ during the growing years ensure robust and harmonious bone and muscle development; vitamin K₂ supported by vitamins A and D ensures good bone density and prevents the sealing of the growth plates in the long bones too early, so that we grow tall; plentiful vitamin K₂ in utero and during development ensures wide and strong development of the facial bones, so that the dental palate is large, the teeth are straight, the cheekbones wide and the face attractive. Plentiful vitamin K₂ in the saliva, along with adequate dietary calcium and phosphorus, prevent tooth decay.

Dr. Price referred to vitamin K₂ as Activator X (others called it the
Price Factor), because he did not know exactly what it was; subsequent research revealed this fat-soluble vitamin to be vitamin K₂, the animal form of vitamin K₁.

Vitamins A, D and K₂ work together—vitamins A and D tell the cells to make certain proteins; Vitamin K₂ then activates proteins after signaling by vitamins A and D. Taking too much of one of these vitamins can lead to deficiencies of the other two; we need to obtain the fat-soluble vitamins from food, where they tend to occur together, and not from isolated vitamins.

One reason we don’t get enough of these fat-soluble vitamins today is because we raise our animals in factories on an exclusive grain diet. When our cows, pigs and poultry are raised outside on green grass, these animals make more vitamin A from the carotenes in green grass, more vitamin D from sunlight, and more vitamin K₂ from vitamin K₁ in green grass.

The fat-soluble vitamins occur in unpalatable foods like insects, intestines and seal oil, but also in delicious foods like pâté, liverwurst, scrapple, caviar, oily fish, shrimp, oysters, mussels, duck and goose fat, duck and goose liver, pork lard, butter, cream and egg yolks. The very foods we are told not to eat are the foods that supply these critical nutrients. Eating like our ancestors means including as many and as much of these foods in our diet as we can.

Because we simply don’t eat as many organ meats and “weird” foods as traditional people, a good practice is to include a natural cod liver oil in the diet to supply vitamins A and D, along with vitamin K₂—rich foods like aged cheese, duck and goose fat, duck and goose liver, and butter and egg yolks from pasture-fed animals. Butter centrifuged to make a butter oil, and Australian emu oil are other rich sources of vitamin K₂.
Third Principle

For further information:

Articles
• On cholesterol: westonaprice.org/know-your-fats/cholesterol/
• On the basics of fats and oils: westonaprice.org/know-your-fats/basics-on-fats-and-oils/
• On fat-soluble activators: westonaprice.org/abcs-of-nutrition/fat-soluble-activators/
• On fats: westonaprice.org/know-your-fats/
• On saturated fats: westonaprice.org/know-your-fats/saturated-fats/
• On cod liver oil: westonaprice.org/cod-liver-oil/
• On coconut oil: westonaprice.org/know-your-fats/coconut-oil/

Brochures
• Butter is Better (English, Spanish and Danish); Myths & Truths about Cholesterol (English and Spanish); Dangers of Fats & Oils; Cod Liver Oil: westonaprice.org/about-us/brochures/

Journals
• Fat-Soluble Vitamins; Summer 2020: westonaprice.org/journal-spring-2020-fat-soluble-vitamins/
• Vitamin A, The Scarlet Nutrient; Summer 2016: westonaprice.org/journal-summer-2016-vitamin-scarlet-nutrient/

Wise Traditions Podcast westonaprice.org/podcast/
• Episode 30: Principle 3: Nutrient Density with Sally Fallon Morell
• Episode 45: The Skinny on the Fat with Nina Teicholz
• Episode 65: Why We Need Animal Fats with Sally Fallon Morell
• Episode 243: Maximize Nutrient-Density with Sally Fallon Morell
• Episode 173: Big Fat Lie with Jennifer Isenhart
• Episode 233: Vitamin A-mazing with Pam Schoenfeld, RD

Videos
• Saturated fats, polyunsaturated oils and omega-3 and 6: westonaprice.org/category/video/saturated-fats-polyunsaturated-oils-and-omega-3-and-6/

Recipes
• Organ meats and fat: westonaprice.org/category/our-blogs/recipe-of-the-week/organ-meats/